



APPROVING SENIORS HOUSING

Facts That Matter

Paul Emrath



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Approving Seniors Housing: Facts That Matter

Paul Emrath

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About the Author

Paul Emrath, Assistant Staff Vice President of Housing Policy Research, NAHB Housing Policy Department, conducted the research on which he based this booklet, *Approving Seniors Housing: Facts That Matter*. The Housing Policy Department provides statistical and economic research to support other, primarily policy-making functions of NAHB—including legislative and regulatory advocacy and activities undertaken by various committees, councils, and state and local builder associations affiliated with NAHB. In addition to seniors housing, Emrath's areas of expertise include multifamily housing and estimating the economic impacts of home building.

Since joining NAHB in 1992, Emrath has developed many of the methods NAHB uses to analyze housing markets and government housing programs, and published articles on a wide variety of housing-related topics in *Seniors Housing News* and elsewhere. His articles “Seniors in the Market for Housing: State Forecasts Through 2006” (*NIC Review*, Vol. 6, November 1998) and “The American Housing Survey: A Valuable New Information Source for Seniors Housing” (*Seniors Housing & Care Journal*, Vol. 10, No. 1, 2003) won National Investment Center awards for original research in the field of seniors housing. Before joining NAHB, he taught economic theory and statistics at the University of Wisconsin-Oshkosh. He has a Ph.D. in Economics from the University of Wisconsin-Milwaukee.

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About Seniors Housing Council

The NAHB Seniors Housing Council serves NAHB members who are involved in providing housing for the 50+ populations. *Approving Seniors Housing: Facts That Matter* is another service of the Seniors Housing Council in cooperation with BuilderBooks.com, and the NAHB Department of Housing Policy.

Reviewers

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INTRODUCTION

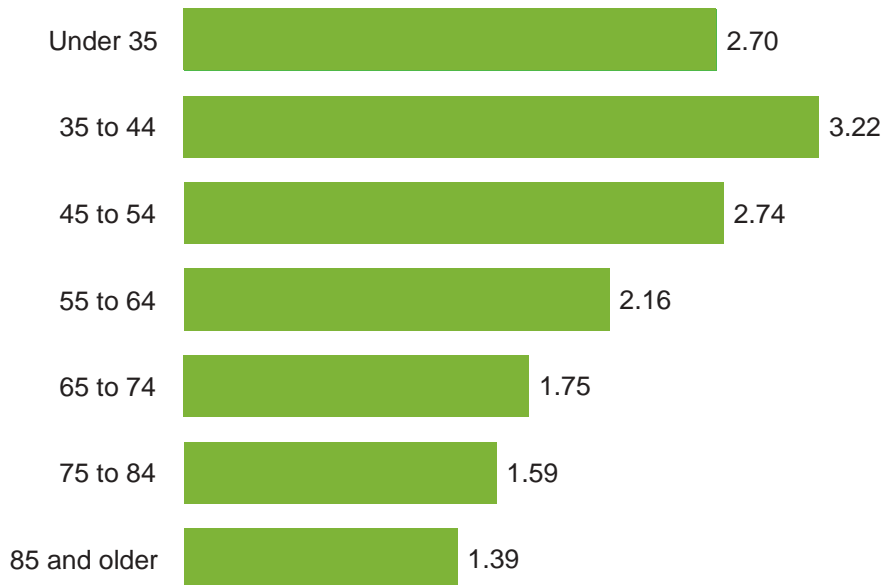
Developers often face substantial obstacles in obtaining approval for a particular community. As local planning authorities adopt more stringent growth management policies—

- Communities are subjected to greater scrutiny during the planning phase.
- Reviews become more time-consuming and costly.
- Developers increasingly bear the burden of proving that their communities will not adversely impact the surrounding communities.

For developers of seniors housing, the burden can be even greater. Many zoning ordinances still do not explicitly recognize seniors housing as an allowable land use, so a special exemption or use permit is required. Developers may also need to contend with infrastructure requirements or impact fees that are unrealistically high, given the nature of the communities. Partly because seniors housing is a relatively new and rapidly evolving segment of the industry, the relevant information is not always readily available.

When assessing the impacts of residential development, local planners often rely on national or regional population averages. The projected number of residents moving into the development, for example, may be based on average household size tables taken from the Census. Some frequently used development standards, such as parking requirements, are based on a consensus reached among one or two dozen experts gathered around a table in Washington D.C. In many cases, these numbers are obtainable at a reasonable cost and provide planners with good working estimates. However, these statistics seldom recognize the special nature of housing intended for seniors, who can differ from people in average households in important ways. The most often used statistics on household size, for instance, usually control for structure type and number of bedrooms, but seldom take the age of the residents into account. Yet statistics show that average household size declines with age after the head of the household reaches, approximately, age 45 (Figure 1).

Figure 1. Persons Per Household by Age of Household Head



Source: 2001 American Housing Survey, U.S. Census Bureau and HUD

Housing intended for seniors may be either explicitly age-restricted (or “age-qualified,” as many industry experts would now prefer to say) or targeted to adults above a certain age threshold through a marketing effort and the amenities designed into the community. In either case, seniors housing comes in a variety of types, with active adult communities at one end of the spectrum and skilled nursing facilities at the other.

The Census Bureau classifies the places where people live as either housing units or group quarters. A housing unit is “a house, apartment, mobile home (or trailer), or group of rooms occupied as separate living quarters, or, if vacant, intended for occupancy as separate living quarters.” Group quarters are then defined as all places where people live that are not housing units.

Skilled nursing facilities are clearly group quarters. Other types of seniors housing are either housing units or are straddling the boundary between housing units and group quarters classifications. A universally recognized scheme for classifying these housing types doesn’t exist, but the following terms are in common use in the industry.

Active Adult Communities. Primarily subdivisions of owner-occupied single-family homes.

Seniors Apartments (or Independent Living Facilities). Rental apartments that are age-restricted or otherwise targeted to seniors. Units built under the Low-Income Housing Tax Credit program that are intended for seniors but provide no special services beyond affordable rents would be an example, but this category also includes many market-rate apartments. In addition, multifamily condos have become a significant part of the seniors market. Some people would consider these examples of independent living; others would group them in the active adult category.

Congregate Care Facilities. Rental apartments with a central dining room where tenants usually would be served at least one meal a day. Other “hospitality-type” services, such as shopping and housekeeping, also may be provided.

Assisted Living Facilities. Apartments that offer tenants assistance with activities of daily living, such as bathing and dressing.

Continuing Care Retirement Communities. A combination of independent living and assisted living units that also provide medical services; access to on-site nursing care, if needed, is usually guaranteed by contract.

Many types of seniors housing have evolved fairly recently, and virtually all are in the process of evolving further. In order to grant approval for a seniors housing community without unnecessary delays, local officials need to document some of the ways in which seniors housing differs from other types of housing.

Listed below are summaries of seven chapters that present the results of seven studies designed to help developers successfully navigate the approval process for seniors housing communities. The studies resulted from discussions between NAHB economists and industry members who were encountering specific problems in obtaining approval for seniors housing communities. Each chapter addresses one of these problems and provides charts and statistics that developers can present to local authorities and community associations. The sources used to generate the charts and statistics (primarily data scientifically collected by government statistical agencies) are fully documented.

1. Education Issues. Explains the Fair Housing Law that lets developers age-restrict a property so it will contain no school-aged children. Demonstrates that, even if a seniors housing community is not explicitly age-restricted, it will not contain many children of that age. Presents a case study that shows how residents of an active adult community supported a large school bond issue.

2. Planning for Road Improvements. Shows that seniors housing has fewer people per household using local roads and that they tend to avoid roads during times of peak traffic congestion.

3. Parking Standards. Assuming that an adequate local parking standard exists for residential construction in general, shows how to generate a smaller yet still adequate standard for seniors housing communities. Provides a spreadsheet to perform the calculations for a specific community.

4. Public Safety Services. Addresses the issue of ambulance use, showing that the increase associated with a seniors housing development in many cases will be minimal. Also shows how to put this issue in the context of a local government's total public safety budget: demonstrates the advantages of new construction in terms of the fire protection budget, and the powerful advantages of a community occupied by seniors in terms of the budgets for police protection and correctional facilities.

5. Water and Sewer Services. Shows that seniors use fewer water and sewer services than other households in proportion to the differences in household size.

6. Public Parks and Libraries. Provides information about what types of recreational facilities seniors prefer to use. Shows that they tend to use libraries somewhat less than younger households.

7. Local Economic Benefits. Presents the local income, jobs, and taxes generated by a typical active adult community, and uses the NAHB Local Impact of Home Building Model.

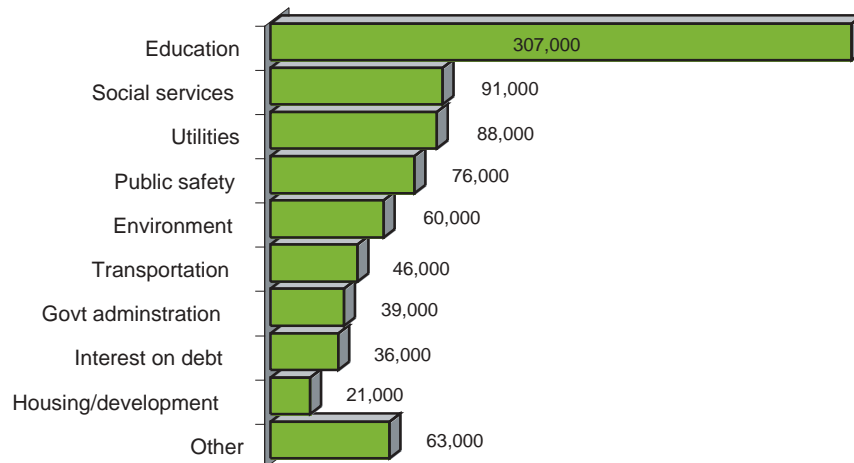
Chapters will be updated as new material becomes available.

If you have questions or need assistance interpreting the material provided in these studies, contact Paul Emrath, NAHB Assistant Staff Vice President, Housing Policy Research at (800) 368-5242, extension 8449.

CHAPTER 1: Education Issues

One important way seniors housing differs from traditional housing communities is in its impact on public education—the budget item that is usually the largest local government expenditure. Public education accounts for about 37 percent of all direct spending by local governments

Figure 2. Direct Spending by Local Governments in \$Millions



Source: 1997 Census of Governments, U.S. Census Bureau

DID YOU KNOW THAT THE FAIR HOUSING LAW LETS YOU BUILD COMMUNITIES FOR ADULTS ONLY REGARDLESS OF THEIR SIZE OR THE SERVICES THEY PROVIDE?

Legal Background: You can build for adults only, if you want.

Developers do not necessarily want to age-restrict all communities intended for older customers. If they do want to, however, the current federal laws do not make it particularly difficult. Not everyone understands the statutory changes that have taken place over the years to bring about this situation.

1968 Fair Housing Act made it illegal to refuse to sell or rent housing to families simply because they had children.

1988 An Amendment to the Fair Housing Act allowed housing occupied by people age 55 or older to be legally age-restricted, but only if the property provided significant facilities and services for the elderly.

1995 Housing for Older Persons Act relaxed the conditions under which housing could be age-restricted by removing the “significant facilities” requirement, making it possible to build seniors housing communities of virtually any size and with any package of amenities.

The bottom line is that, under current federal law, a housing community can exclude residents below a certain age if it meets any of the following requirements:

- Demonstrates the intent to house people age 55 or older and has at least one person of that age group in 80 percent of its occupied units.

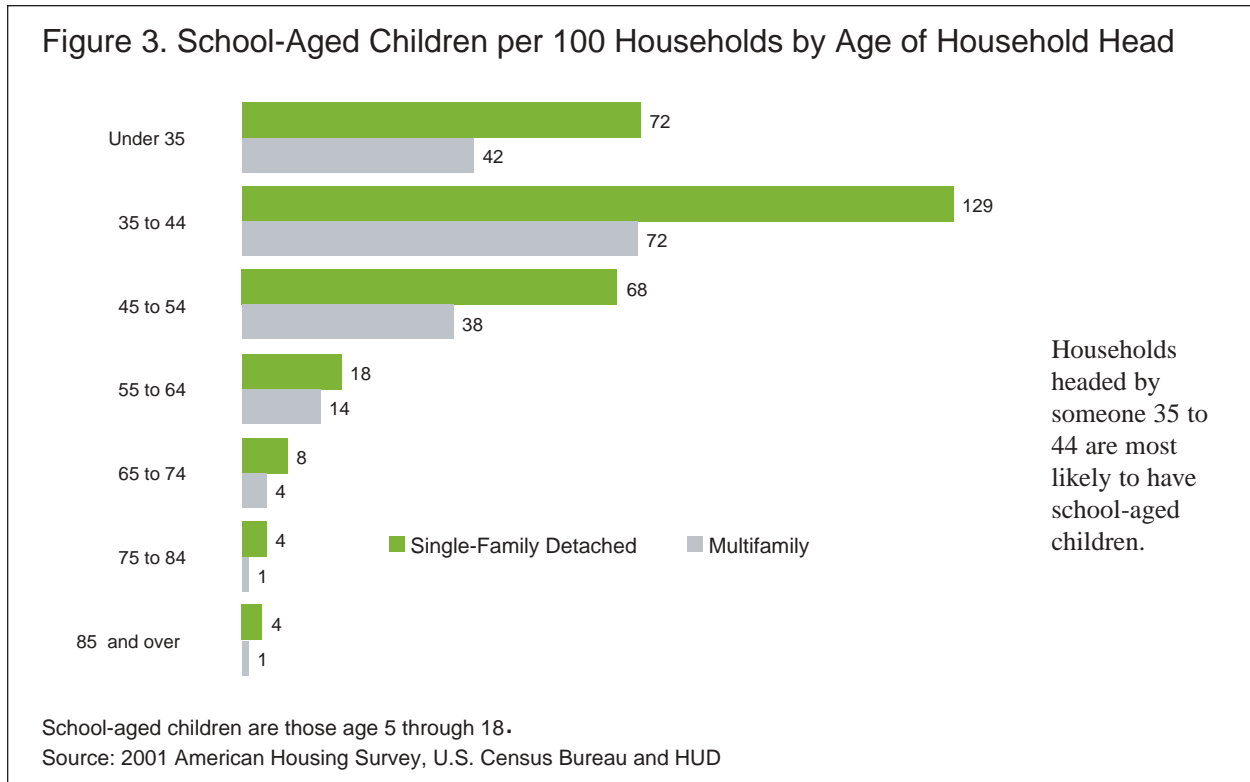
- Is occupied by people who are age 62 or older.
- Is designed for and occupied by elderly people under some federal, state, or local government program.

In practice, these regulations mean that the developer of an age-restricted community—

- Does not have to officially register with the federal government (but may have to register with the state in which the developer is located).
- Needs to maintain records on the age of occupants.
- Needs to keep records, such as advertising materials, that document the intent to house people age 55 and older (unless it's a community only for people above age 62 or one developed using a government program).

In short, the 1995 change in the law made building age-restricted housing easier because the builder no longer has to include special seniors-related facilities in the structure. Obviously, age-restricted housing will contain no school-aged children, and therefore will not increase the demand for public elementary and secondary education.

Even if seniors housing is not age-restricted, the impact on public elementary and secondary schools will be minimal. Sometimes developers do not want to explicitly exclude school-aged children, but do so because that's the only way a local government will grant relief from school impact fees. Those local governments are essentially wasting time and energy on an unnecessary action. If a property's households are headed by adults over age 55, they are unlikely to contain many school-aged children. Figure 3 shows this data for both single-family and multifamily housing based on the 2001 American Housing Survey (AHS).



In 100 typical households, there are 129 school-aged children if the households are headed by someone age 35 to 44. That's seven times the number of school-aged children in otherwise similar households headed by someone age 55 to 64, and more than 15 times the number in households headed by someone age 65 to 74.

Thus, even if seniors housing is not explicitly age-restricted, seniors housing will have a negligible impact on local school districts.

Supporting School Bonds: A California Case Study

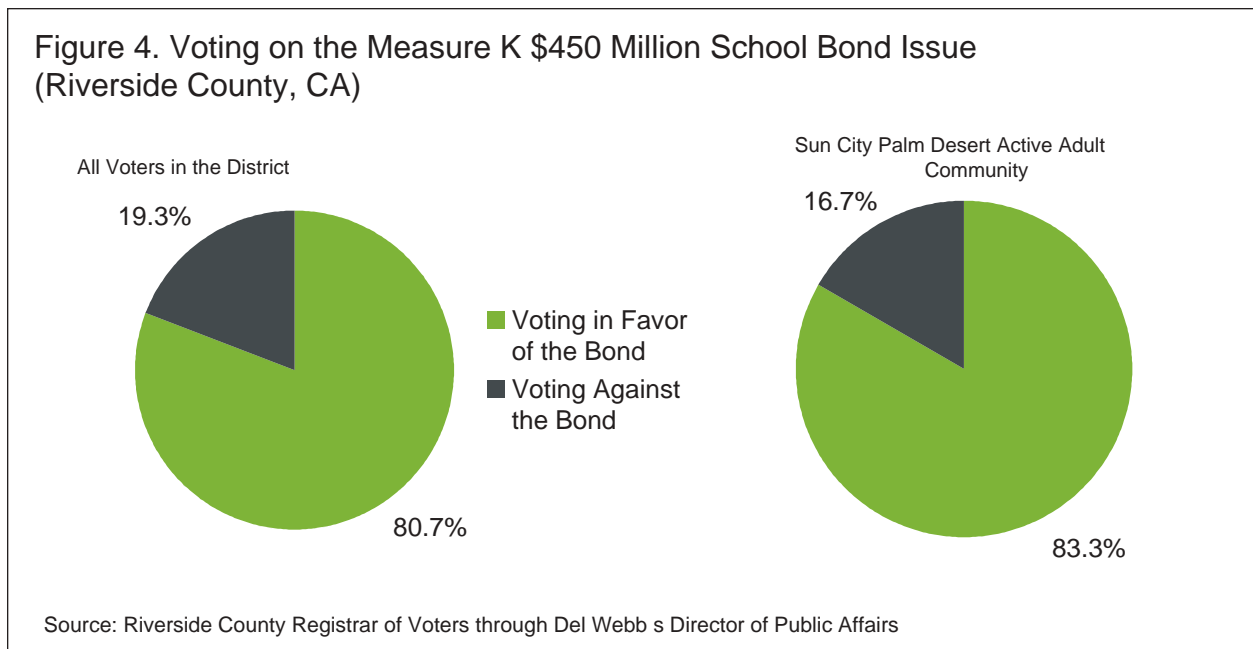
Because seniors households contain few children, residents in many communities are afraid that seniors perceive themselves as having a small stake in local school systems, and that a seniors housing community will create a voting block that tends to oppose new school bond issues. But that perception isn't true in every case, as Measure K in California demonstrates.

MEASURE K WAS A \$450 MILLION BOND ISSUE FOR SCHOOL CONSTRUCTION (THE 4TH LARGEST SCHOOL BOND IN CALIFORNIA HISTORY) THAT WAS ON THE NOVEMBER 2001 BALLOT IN THE DESERT SANDS UNIFIED SCHOOL DISTRICT IN RIVERSIDE COUNTY. IN ORDER TO PASS, THE BOND REQUIRED A 67 PERCENT SUPERMAJORITY OF THE VOTES.

A percentage of voters in the district live in Sun City Palm Desert, a Del Webb age-restricted active adult community. California adds some conditions to the federal laws governing seniors housing. In California every household in an age-restricted community must have at least one member who is age 55 or older, and none of the residents can be under age 45 with certain exceptions (such as a spouse, caregiver, principal means of support, or handicapped child).

According to information obtained from the Riverside County Registrar of Voters through Del Webb's director of public affairs, Measure K passed easily. Overall, the measure gained 12,110 "yes" votes compared to 2,896 "no" votes, so that just over than 80 percent voted in favor of the bond issue and easily surpassed the required two-thirds supermajority.

Rather than hindering passage of the bond issue, the seniors in Sun City Palm Desert showed strong support for it. Residents of Sun City Palm Desert cast 1,170 "yes" votes and only 234 "no" votes. In other words, 83 percent of the voters in the seniors community voted in favor of a \$450 million school bond issue—a slightly higher percentage than in the school district overall (Figure 4).

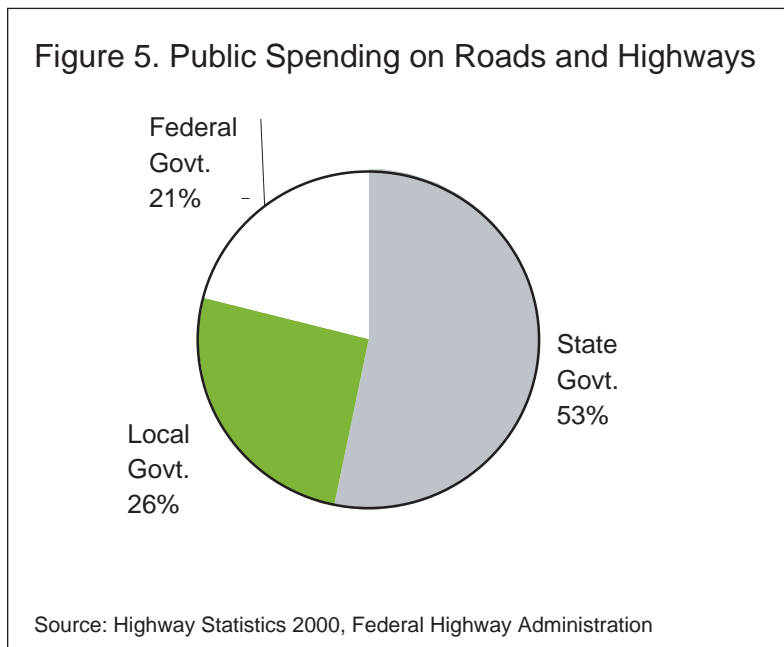


This case study is based on the results of one ballot in one school district. As such, it can't be generalized to the entire country. But it does provide one example to counter the assumption that seniors will automatically oppose any school bond issue.

CHAPTER 2: Planning for Road Improvements

TWO OF THE OBVIOUS ADVANTAGES OF SENIORS HOUSING ARE THAT SENIORS HAVE FEWER PEOPLE PER HOUSEHOLD TO GENERATE TRIPS ON LOCAL ROADS, AND SENIORS TEND TO AVOID ROADS DURING TIMES OF PEAK CONGESTION.

Compared to education, transportation is a smaller but still significant item in local government budgets (Figure 2). In the typical case, most of a local transportation budget consists of spending on roads and highways.¹ Although the amount spent on road infrastructure concerns the local jurisdictions that issue building permits, it's likely to be a greater concern for the state governments that fund the lion's share of highway spending (Figure 5).



At the local level, concerns are more often related to physical, rather than fiscal, costs. Will new development strain the existing network of local streets? Will it increase congestion and commuting times for residents of existing neighborhoods?

RESIDENTIAL CONSTRUCTION AND TRANSPORTATION INFRASTRUCTURE ARE COMPLEMENTARY. SOUND COMMUNITY DEVELOPMENT REQUIRES THE RIGHT MIX OF THESE TWO ELEMENTS.

Sometimes, new roads precede other construction and allow traffic into previously inaccessible areas. Other times homebuilding takes place first, and the eventual population growth induces road improvements. Some jurisdictions require developers to build roads, dedicate land for that purpose, or pay an impact fee to cover the anticipated cost.

1. Public transit is classified as a "government enterprise," such as an electric utility (financed by charging users and requiring, in most cases, minimal government subsidy), that is usually not included when projecting fiscal costs of development.

Road-building requirements, land dedications, and fees need to be kept within reasonable limits. Current residents in a local jurisdiction have an incentive to charge excessive fees for new communities, especially if they need to make up for years of neglected infrastructure spending.

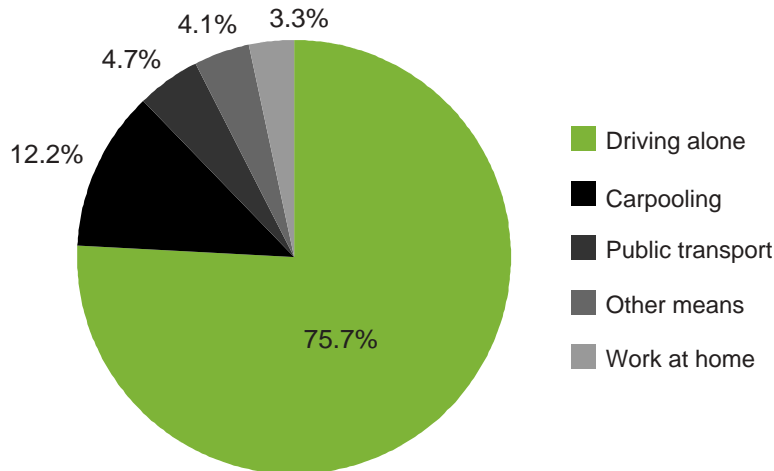
To guard against that situation, the public sector needs to provide adequate funding for road improvements on an ongoing basis. Alternatives such as growth moratoria are unlikely to be successful.

LOCAL GOVERNMENTS CANNOT CONTROL POPULATION GROWTH. PEOPLE HAVE TO LIVE SOMEWHERE.

Preventing development in one area merely shifts it outside the restricted area. The shift can easily move homes and trip destinations farther apart, leading to longer average commuting distances, more time spent on the road, and increased congestion. Congestion can even rise inside the growth restriction boundaries, as people may drive through the area even though they are prevented from living there.

Strategies for reducing congestion through some combination of increased carpooling, use of public transportation, and telecommuting also are unlikely to meet with widespread success. Driving alone remains the most popular way to get to work—by a wide margin (Figure 6).

Figure 6. How Americans Get to Work

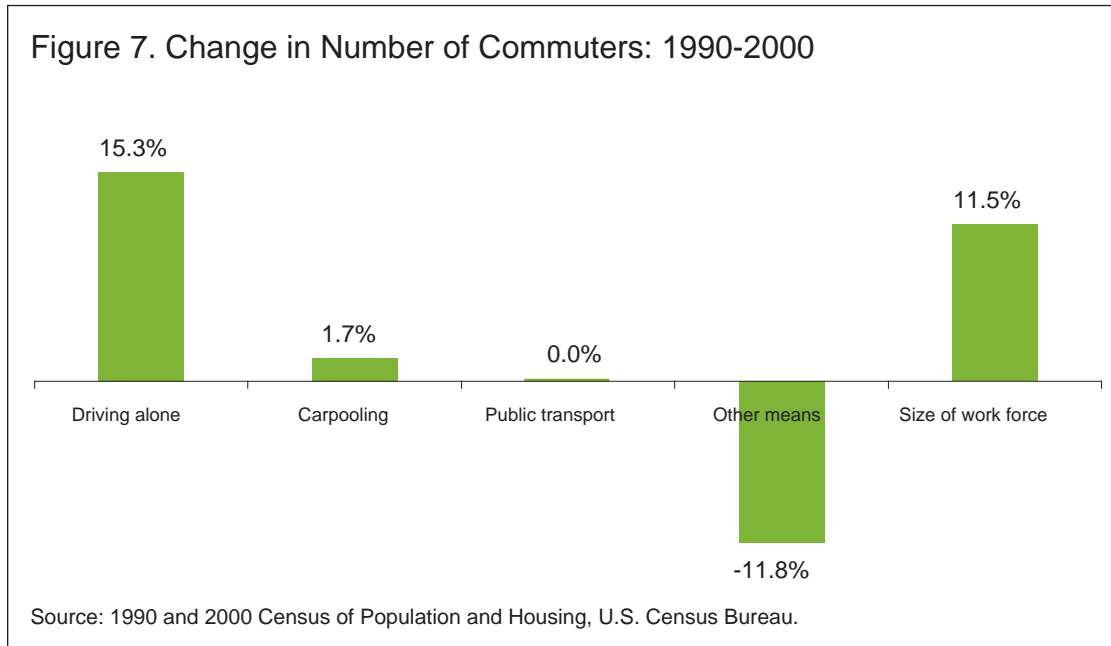


Source: 2000 Census of Population and Housing, U.S. Census Bureau.

IS DRIVING A BAD THING? ACCORDING TO RESEARCHERS FROM HARVARD AND TUFTS UNIVERSITIES, “CARS ARE JUST SO MUCH FASTER THAN PUBLIC TRANSPORTATION THAT COMMUTES IN THE OLD DENSE CITIES ARE ALMOST ALWAYS MUCH LONGER,” AND “CAR-BASED EDGE CITIES HAVE MUCH MORE RACIAL INTEGRATION THAN THE OLDER PUBLIC TRANSPORTATION CITIES THAN THEY REPLACED.”²

2. Ed Glaeser and Matthew Kahn, *Sprawl and Urban Growth* (National Bureau of Economic Research, 2003): <http://www.nber.org/papers/w9733>

Perhaps more surprisingly, while driving to work is on the rise, other means of getting there are actually losing ground (Figure 7).



Driving alone is the only means of getting to work that is increasing more rapidly than the volume of the work force.

The number of people working at home—although they are increasing at a somewhat faster rate than the number driving to work—still accounts for only a small share of the labor force, so it seems unlikely that telecommuting is destined to solve many traffic congestion problems in the short run.

WHILE ROAD INFRASTRUCTURE SHOULD BE ADEQUATE, MAKING IT MORE THAN ADEQUATE ALSO HAS DISADVANTAGES.

Local streets that are wider, paved more deeply, or otherwise made more elaborate than necessary drive up the cost of development. They may in some cases encourage dangerous driving, be environmentally unfriendly, and adversely affect neighborhood aesthetics. Providing the appropriate levels and types of transportation infrastructure therefore requires striking a delicate balance that can be attained only if planners are aware of the differences between seniors housing and other types of residential developments.

FORTUNATELY, THE RELATIVE ADVANTAGES OF SENIORS HOUSING ARE EASY TO DOCUMENT.

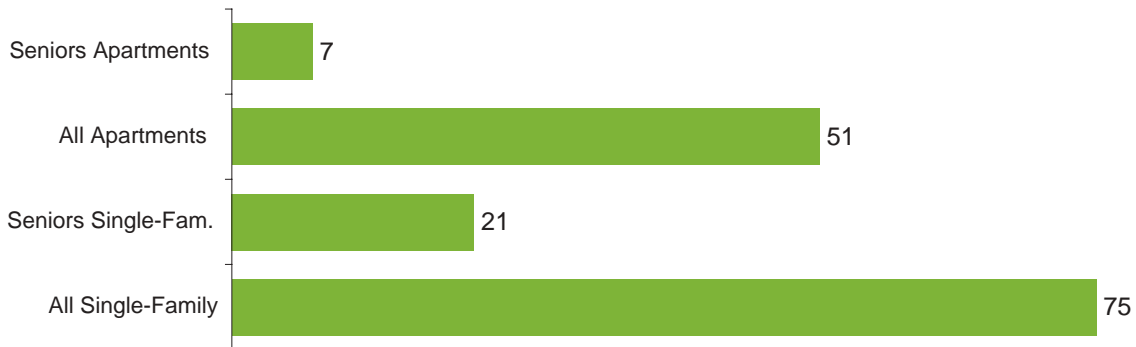
The number of persons per household is one of the key variables. After approximately age 45, household size declines as the age of the household head rises (Figure 1), so senior households tend to use roads less frequently simply because they contain fewer people. In a jurisdiction where transportation-related fees or land dedications are based on use-per-person estimates, the requirements for a seniors housing unit will be reduced proportionately, as long as household size is taken appropriately into account.

Household size, of course, doesn't tell the whole story. Because seniors' travel is usually not tied strongly to the requirements of either a full-time job or a full-day school schedule, seniors can often time their trips to avoid morning and evening rush hours.

The standard reference used by planners, *Trip Generation*, provides one of the few distinct estimates for seniors housing. This manual, published by the Institute of Transportation Engineers (ITE), specifies that the most important indicators of impact on road congestion are trips generated during “rush” hours, which ITE defines as the hours between 7 a.m. and 9 a.m. and between 4 p.m. and 6 p.m. when traffic is at its greatest. A trip is defined as a vehicle either entering or leaving the site. The relevant numbers from *Trip Generation* are summarized in figures 8 and 9. (This manual is published at irregular and somewhat infrequent intervals. The 6th edition was published in 1997.)

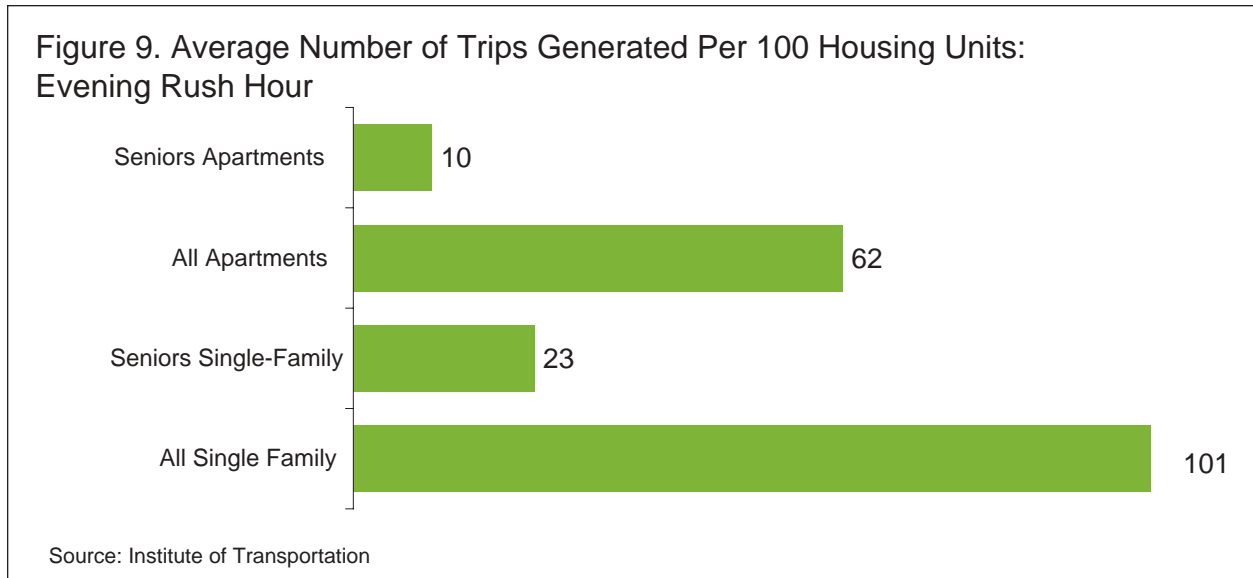
DURING RUSH HOURS, THE DIFFERENCES BETWEEN SENIORS AND OTHER TYPES OF HOUSING ARE ESPECIALLY STRIKING.

**Figure 8. Average Number of Trips Generated Per 100 Housing Units:
Morning Rush Hour**



Source: Institute of Transportation Engineers; Trip

During the morning rush hour, 100 seniors housing units generate, on average, only 21 (for single-family) and seven (for multifamily) trips—compared to 75 and 51, respectively, for homes occupied by residents of all ages. During the evening rush hour, the number of trips generated is slightly higher across the board, but the pattern of drastically reduced traffic for homes occupied by seniors is just as evident.



The bottom line is that the standard planning reference shows that seniors drive their cars less during the times when road use is closest to capacity. If the homes being built are seniors housing units, local jurisdictions can spend less on road infrastructure and still maintain existing traffic-flow and safety conditions.

CHAPTER 3: Parking Standards

Besides traffic, parking is the other transportation-related item local jurisdictions are likely to consider when reviewing a proposal for a residential development. Here the concern is not fiscal costs so much as simply determining the right number of parking spaces to require in the development. Parking should be sufficient to accommodate residents and visitors, but it should not unnecessarily consume space that could be put to better use.

PARKING STANDARDS ARE TYPICALLY GOVERNED BY LOCAL ORDINANCES. EXCEPTIONS TO ORDINANCES THAT GRANT REDUCTIONS IN THE STANDARDS ARE NOT UNUSUAL. THE QUESTION IS WHAT SORT OF REDUCTIONS ARE REASONABLE AND APPROPRIATE FOR SENIORS HOUSING.

A set of parking standards in common use were developed by the U.S. Department of Housing and Urban Development (HUD) and the NAHB Research Center (see Table 1).³

Table 1. HUD-NAHB Research Center Parking Standards

Type of housing unit	Parking spaces
Single-Family Detached	2.0
Multifamily	
3 or more bedrooms	2.0
1 or 2 bedrooms	1.5
Efficiency	1.0

Source: Proposed Model Land Development Standards, 1993.

The standards may be fulfilled by any combination of on-street and off-street parking spaces. They are the result of a consensus reached by a panel of experts, including planners from local governments. The standards should provide at least enough spaces for residents and visitors in the vast majority of cases.

SPACE DEVOTED TO PARKING SHOULD BE CONSERVATIVE. IF IT CAN BE REDUCED, IT FREES UP SPACE THAT CAN BE USED TO ENHANCE THE ECONOMIC OR AESTHETIC VALUE OF THE NEIGHBORHOOD—THROUGH ADDITIONAL LANDSCAPING OR RECREATIONAL FACILITIES.

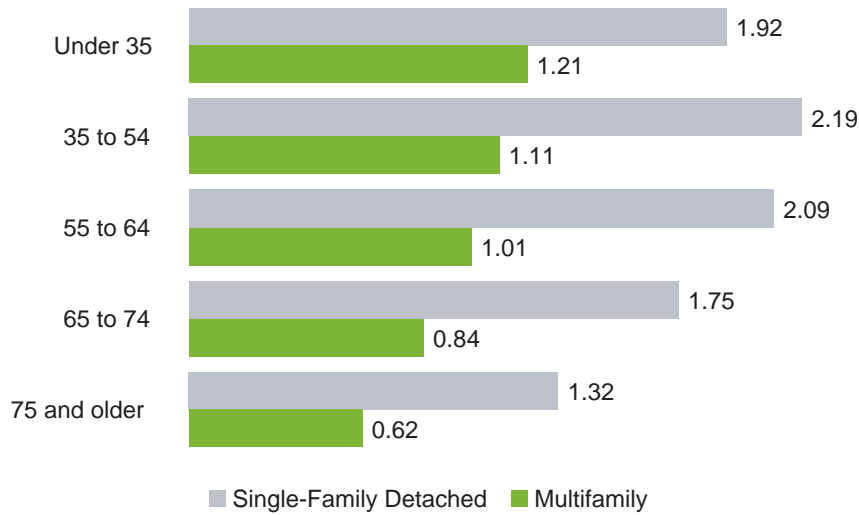
The text accompanying the HUD/NAHB Research Center standards clearly states that modifications to the standards are appropriate in some cases, and that planners should take factors such as the availability of public transportation into account. No formulas or specific reductions are provided, however.

IF THE NEW DEVELOPMENT WILL BE OCCUPIED BY SENIORS, THAT FACT OBVIOUSLY JUSTIFIES REDUCING THE NUMBER OF PARKING SPACES REQUIRED. ON AVERAGE, SENIORS HAVE FEWER CARS.

3. Proposed Model Land Development Standards and Accompanying Model State Enabling Legislation. Prepared for the office of Policy Development and Research, U.S. Department of Housing and Urban Development (Upper Marlboro, Md.: NAHB Research Center, 1993), p. 11-12.

Households headed by seniors contain fewer people (Figure 1) and fewer vehicles in both single-family detached and multifamily housing (Figure 10).

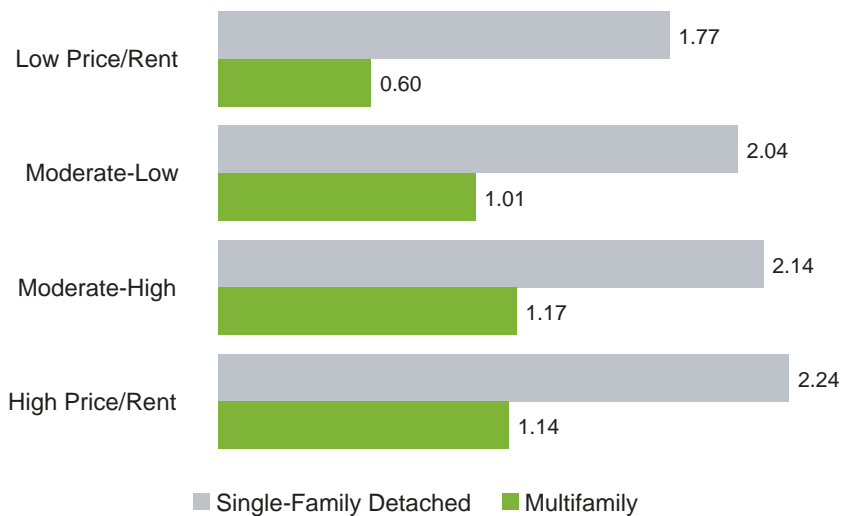
Figure 10. Vehicles Per Household by Age of Household Head



Source: 2000 Census 1% Public Use Microdata Sample, U.S. Census Bureau

Similarly, households in less costly housing units (measured by value if the homes are owner-occupied and gross rent if they are renter-occupied) also tend to have fewer vehicles (Figure 11).

Figure 11. Vehicles Per Household by Cost of the Home Owned or Rented



Based on owner-occupied single-family detached and renter-occupied multifamily units only.
Source: 2000 Census 1% Public Use Microdata Sample, U.S. Census Bureau

DID YOU KNOW THAT HOUSEHOLDS UNDER AGE 35 IN MODERATE- TO HIGH-RENT APARTMENTS HAVE FOUR TIMES AS MANY VEHICLES AS HOUSEHOLDS OVER AGE 75 IN LOW-RENT APARTMENTS?

Housing cost measures (value and gross rent) are defined relative to income levels in the geographic area. Because house prices vary so much across the country, you need a definition of high- and low-cost units relative to a benchmark that varies from place to place. For example a price that seems low in San Francisco may seem quite high to prospective buyers in rural Mississippi. Area Median Family Income (AMI) is used as the local benchmark, primarily because it's available for every county in the United States, is updated every year, and is readily available on one of HUD's websites (<http://huduser.org/datasets/il.html>).

The evidence suggests that parking standards could be reduced somewhat for particular types of housing units. The question is how to do it in a conservative fashion that will still provide sufficient parking in the vast majority of cases.

Care is required, because averages don't tell the whole story. In other words, seniors may on average have fewer cars and trucks, but a fraction of them still want to hold on to all their vehicles. For this reason, some additional analysis based on properties of the distributions other than averages is used to make sure the parking space reductions recommended are conservative.

Additional statistics and a technical description of the procedure are shown. Additional statistics and a technical description of the procedure are available from Paul Emrath, NAHB Assistant Staff Vice President of Housing Policy Research, 202-266-8499.

The results are used to show how the HUD/NAHB parking standards can be modified for single-family (Table 2) and multifamily (Table 3) housing units.

Table 2. Parking Space Standards for Single Family Units: Recommended Modifications Based on Age of the Household and House Price

	All Single Family Detached	Single-Family Detached House Price				Town- houses
		Low Under 2 x AMI	2 to 3 x AMI	3 to 4 x AMI	High 4 x AMI or Higher	
A. Initial Parking Space Standard (HUD/NAHB Research Center)						
	2.00	2.00	2.00	2.00	2.00	2.00
B. Modified Parking Space Standard						
Age 55 to 64	2.00	1.95	2.00	2.00	2.00	1.85
Age 65 to 74	1.85	1.65	1.85	1.95	2.00	1.70
Age 75 or older	1.40	1.25	1.40	1.55	1.65	1.40
C. Percentage Reduction from Initial Standard						
Age 55 to 64	0.0%	-2.5%	0.0%	0.0%	0.0%	-7.5%
Age 65 to 74	-7.5%	-17.5%	-7.5%	-2.5%	0.0%	-15.0%
Age 75 or older	-30.0%	-37.5%	-30.0%	-22.5%	-17.5%	-30.0%

House Price categories are expressed as a share of Area Median Family Income (AMI).
Table assumes the initial standard for single-family attached units is the same for detached units.
Based on NAHB tabulations of the 2000 Census of Population and Housing 1% Public Use Microdata Sample.

Single-Family Versus Multifamily

Single-family. A housing unit with no other unit above or below it, separated from any adjacent unit by an unbroken wall that extends from basement to roof.

Multifamily. Units that share utilities will have pipes or ducts that pierce the wall and will be classified as part of a multifamily structure.

Table 2 includes townhouses. Townhouses are not specifically mentioned in the HUD-NAHB standards. The table assumes that the single-family detached standard is used for these with (the standard is 2.0 spaces for both three-bedroom multifamily and single-family detached units). The federal government classifies many townhouses as “single-family attached.” To most people, the difference between a single-family attached unit and a multifamily townhouse is subtle to nonexistent.

Table 3. Parking Space Standards for Multifamily Units: Recommended Modifications Based on Age of the Household, Rent, and Number of Bedrooms

	Gross Rent				Number of Bedrooms		
	Low Under 10% of AMI	10 to 15% of AMI	15 to 20% of AMI	High 20% AMI or Higher	None (Efficiency)	One or Two	Three or More
A. Initial Parking Space Standard (HUD/NAHB Research Center)	1.50	1.50	1.50	1.50	1.00	1.50	2.00
B. Modified Parking Space Standard							
Age 55 to 64	1.00	1.35	1.50	1.50	1.00	1.50	2.00
Age 65 to 74	0.90	1.20	1.30	1.40	0.75	1.30	1.85
Age 75 or older	0.80	1.05	1.05	1.00	0.60	1.10	1.70
C. Percentage Reduction from Initial Standard							
Age 55 to 64	-32.5%	-10.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Age 65 to 74	-40.0%	-20.0%	-12.5%	-7.5%	-25.0%	-12.5%	-7.5%
Age 75 or older	-47.5%	-30.0%	-30.0%	-32.5%	-40.0%	-27.5%	-15.0%

Gross Rent categories are expressed as a share of Area Median Family Income (AMI).

Based on NAHB tabulations of the 2000 Census of Population and Housing 1% Public Use Microdata Sample.

Table 3 shows results for multifamily units with different numbers of bedrooms and different gross rents. The gross rent cutoffs are based on a percentage of AMI. In an area where AMI is \$60,000, gross rents of less than \$500 per month (\$6,000 per year) fall into the “low” category.

Across the gross-rent categories, multifamily uses the 1 to 2 bedroom standard, because that covers most new multifamily construction.

In summary, the procedure used to generate the parking standards—

- presumes that an initial, adequate set of parking standards is available.
- modifies the standards using data on vehicles owned from the decennial Census
- takes the age of the occupants into account.
- takes into account prices or rents charged for the homes, if that information is available
- produces a new set of standards for seniors housing, designed to work as well as the initial standards, provided the assumptions about ages of occupants and prices of the units are accurate.

Assisted Living

Some information about parking requirements for assisted living residences has been collected by the American Seniors Housing Association (ASHA).⁴ ASHA analysts aggregated parking data from a sample of professionally owned and managed assisted living facilities in nine states. They found that most residents of assisted living facilities do not drive themselves and that the facilities often owned a van or mini-bus to provide transportation for resi-

4. Assisted Living Residences: A Study of Traffic & Parking Implication, 2nd ed. (Washington, D.C.: American Seniors Housing Association, 1998).

dents. Thus, parking is needed primarily for staff, vendors, and visitors. The facilities studied by ASHA generally scheduled staff and vendors to arrive and depart during non-peak driving hours, while visitors tended to arrive and depart at all hours during the day.¹

These assisted living facilities provided an average of 0.56 parking spaces per unit, and ASHA analysts speculated that fewer than this number might actually be needed, although the data they examined was too fragmentary to support a decisive recommendation.

The lowest number recommended in tables 2 and 3 is 0.60 spaces per unit for efficiency apartments occupied by residents age 75 or older, which approaches the assisted-living average reported by ASHA.

THE TABLES MODIFY THE HUD/NAHB PARKING STANDARDS AND PROVIDE PERCENTAGE REDUCTIONS THAT CAN BE APPLIED TO STANDARDS SPECIFIED IN LOCAL ORDINANCES

A spreadsheet is available that computes parking requirements for a seniors housing community. In practice, of course, a developer will need to justify assumptions about the expected age of the community's occupants. This justification could be based on past experience with similar communities.

Figure 12 shows the spreadsheet output for a community X—a hypothetical example with 100 single-family detached units and 100 two-bedroom apartments. The example assumes that the HUD/NAHB parking standards would normally apply, but that in this case one-fourth of the residents in each type of unit will be age 55 to 64, one-fourth will be age 75-plus, and the rest will be age 65 to 74. No information about house prices or rents is used.

Figure 12. Worksheet for Computing Parking Spaces Needed for a Seniors Housing Community: Summary of the Results

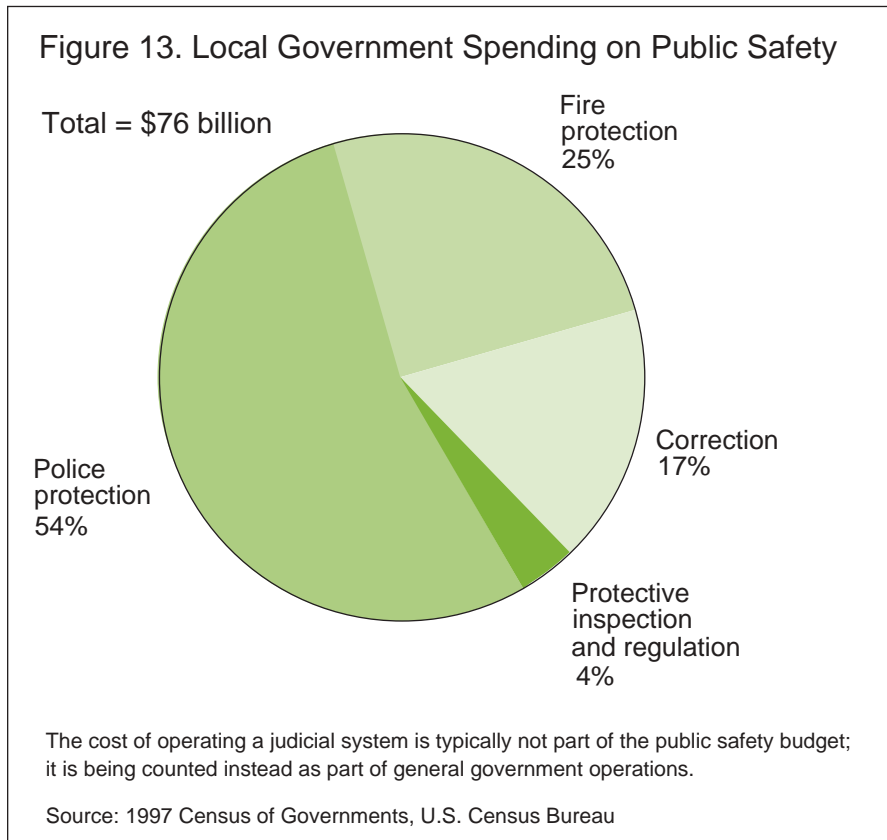
Project name	<u>Community X</u>
Location (County and State)	<u>COUNTY Y, STATE Z</u>
Total number of single-family detached units in the community	<u>100</u>
Parking spaces needed for single-family detached units:	<u>177</u>
Total number of townhouses in the community	<u>0</u>
Parking spaces needed for townhouses:	<u>0</u>
Total number of multifamily apartments in the community	<u>100</u>
Parking spaces needed for multifamily units:	<u>138</u>
TOTAL NUMBER OF HOUSING UNITS:	<u>200</u>
TOTAL PARKING SPACES NEEDED:	<u>315</u>

Because it is a seniors housing community with older residents, community X requires 315 parking spaces rather than the 350 dictated by the HUD/NAHB Research Center standards.

THE WORKSHEET THAT COMPUTES PARKING REQUIREMENTS FOR SPECIFIC SENIORS HOUSING COMMUNITIES IS AVAILABLE FROM THE NAHB SENIORS HOUSING COUNCIL. TO OBTAIN A COPY BY E-MAIL, CALL 1-800-368-5242, X 8220.

CHAPTER 4: Public Safety Services

Public safety is another broad category of expenses in local government budgets. The government's division of the U.S. Census Bureau splits the public safety budget into four components. Police protection is the largest component (Figure 13). Fire protection ranks second, but it is likely to rise to the top of the list when local authorities review proposals to develop seniors housing.



The reason for this is that, when the public sector provides an ambulance service, it is usually run out of a municipal fire department. The most common concern here is that seniors are more likely than others to use the ambulance service and that the cost of providing the service is therefore greater.

To a certain extent, older citizens do use ambulance services more often. Statistics compiled by the National Center for Health Statistics show that, during a given month, people age 85 or older are about eight-and-a-half times as likely as people ages 18-34 to be taken to a hospital emergency room by ambulance.⁵

HOWEVER, FROM THE STANDPOINT OF LOCAL FISCAL IMPACTS, YOU NEED TO PLACE SENIORS' AMBULANCE USE IN THE PROPER PERSPECTIVE

5. According to NAHB tabulation of data from the 2000 National Hospital Ambulatory Medical Care Survey: <http://www.cdc.gov/nchs/about/major/ahcd/ahcd1.htm>.

Important facts to know about seniors and ambulance use appear below:

- Seniors households contain fewer people.
- Ambulance use doesn't really increase significantly until people are past the age when they move into active adult communities.
- In a community of 100,000 households, adding 100 or so extra housing units, even if the new residents are of very advanced age, will have minimal impact on total ambulance use.

Figure 1 shows how household size declines with age. That decline partly compensates for the fact that each person in an older household is somewhat more likely to use local ambulance services.

Table 4 works through a hypothetical example of a city containing 100,000 households with an age distribution and pattern of ambulance use based on U.S. averages.

Table 4. Monthly Ambulance Use in a Hypothetical City

100,000 Households, Age Distribution, and Ambulance Use Based on U.S. Averages

Age of Household Head	Number of Households	Ambulance Trips		Share of All Trips	Impact of Adding 100 Households	
		Per 1,000 Households	Number of Trips		# Trips	%Increase
18 to 34 years	23,340	9.6	224	18.3%	1.0	0.1%
35 to 44 years	22,470	11.0	248	20.2%	1.1	0.1%
45 to 54 years	20,370	10.3	211	17.2%	1.0	0.1%
55 to 64 years	13,310	10.4	138	11.3%	1.0	0.1%
65 to 74 years	10,100	11.5	117	9.5%	1.2	0.1%
75 to 84 years	8,410	24.3	205	16.7%	2.4	0.2%
85 years and over	2,000	41.1	82	6.7%	4.1	0.3%
All ages	100,000	12.2	1,224	100.0%	1.2	0.1%

Source: NAHB tabulations of data from the 2001 National Hospital Ambulatory Medical Care Survey, U.S. National Center for Health Statistics, and the 2001 American Housing Survey, U.S. Census Bureau and the Department of Housing and Urban Development.

THE NUMBER OF AMBULANCE TRIPS TAKEN BY A HOUSEHOLD DURING A ONE-MONTH PERIOD IS, ON AVERAGE, ROUGHLY THE SAME FOR HOUSEHOLDS WITH RESIDENTS IN ANY AGE BRACKET BELOW AGE 75. ADDING A HOUSEHOLD WITH AGES 55-74 TO A COMMUNITY HAS NO GREATER IMPACT ON ITS AMBULANCE SERVICE THAN ADDING A HOUSEHOLD WITH AGES 35-54.

Also, although the ambulance trip rate is highest for households headed by someone over age 85, there are comparatively few of those households in a typical community. Consequently, 85-plus households account for less than 7 percent of the ambulance trips taken per month in the hypothetical city. Adding 100 households with residents older than 85 increases ambulance use by about four ambulance trips per month (a 0.3 percent increase in the hypothetical city of 100,000 households).

LOCAL AUTHORITIES NEED TO JUDGE HOW MUCH FOUR ADDITIONAL TRIPS PER MONTH PER 100 HOUSEHOLDS (AND THAT'S ASSUMING THEY'RE ALL OVER AGE 85) WOULD STRESS THEIR PUBLIC AMBULANCE SERVICES

Ambulance service is only part of local fire protection budgets, and fire protection is on average only one-fourth of local budgets for public safety. Police protection is more than half, and correctional facilities also account for a significant share.

EVEN IF A NEW SENIORS HOUSING COMMUNITY HAS SOME IMPACT ON AMBULANCE USE, IT OFFERS ADVANTAGES THAT ARE LIKELY TO MORE THAN OFFSET THIS COST IN THE CONTEXT OF THE TOTAL BUDGET FOR PUBLIC SAFETY.

Important points to know about seniors housing and overall public safety—

- Fire deaths tend to be lower in places where the housing stock is newer.
- A strong negative correlation exists between age and virtually any measure of crime.
- Seniors are less likely to commit crimes or to become the victims of crime.

The costs of fire protection may not be seniors-specific issues, but there is a relationship between fire safety and new construction in general. The belief that newer homes are more fire-safe has become widespread among fire officials and others. Perhaps the strongest reason for this belief is the way residential building codes have changed since the mid-1970s, requiring the use of more and improved smoke detectors.

Two studies commissioned by homebuilding associations to look into this question provide some supporting evidence.⁶

A study commissioned by the California Building and Industry Association in the 1990s found that the average fatality rate in units that were less than 15 years old was one-eighth as high as the annual average for California's housing stock and one-tenth as high as the rate for houses more than 15 years old.

Nearly identical results were obtained in a national study conducted by the NAHB in 1987. That study found that the fatality rate for units that were 5 years old or less was one-fifth as high as the average fatality rate for all housing units.

Recent research undertaken by NAHB confirms these results. NAHB has performed statistical regression analysis, using data on fire death records combined with data on population and housing characteristics from the 2000 Census. The results allow us to investigate both the seniors fire safety issue and the new-construction fire safety issues. Results are summarized in Table 5.

6. The studies are documented more thoroughly in Elliot Eisenberg, "House Fire Deaths," Housing Economics, November 2002, published by the NAHB Economics Group.

Table 5. Statistical Results for County Fire Deaths Model

	Regression Coefficient	Absolute t-value*
Constant	29.71	11.64
White percent of population	-10.26	3.87
Median household income (in \$10,000)	-2.58	6.47
Percent of the housing stock built after 1994	-17.58	2.45
Adjusted R squared	0.145	

A commonly used standard is to consider a coefficient statistically significant if the absolute t-value is greater than 2.0.

Source: NAHB analysis of data from the Multiple-Cause-of-Death file, National Center for Health Services, and 2000 Census of Population and Housing SF3 files, U.S. Census Bureau.

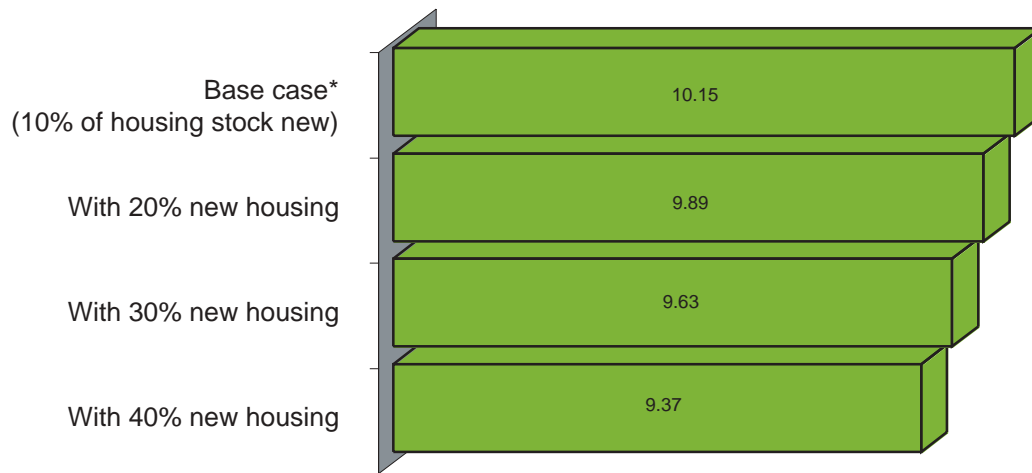
The regression finds several factors that significantly help explain the incidence of fire deaths in a particular county (although there is a substantial amount of county-to-county variation that the regression model doesn't explain.)

BASICALLY, FIRE DEATHS ARE LESS COMMON WHERE INCOMES ARE HIGHER, WHERE MORE OF THE POPULATION IS WHITE, AND WHERE THE HOUSING STOCK IS OF COMPARATIVELY RECENT VINTAGE.

As an aid to interpretation, the regression results are used to simulate a base case and show what happens to it when the share of new construction increases (Figure 14). In the base case, the regression predicts 10.15 fire-related deaths per million people. If the share of relatively new construction increases from 10 to 20 percent, holding other factors constant, the death rate falls to 9.89 per million. Similar increases in the share of new construction lead to proportional reductions in the fire death rate.

7. The Census data provide significant but still somewhat limited information about local areas. A number of Census variables beyond the ones reported in Table 5 were tried in the regression, but they did not help explain reported differences in fire death rates. Nor did the inclusion of these extra variables change the estimated impact of the other explanatory variables in an important way. For more details on the specification of the model contact the NAHB Housing Policy Department (202) 266-8398.

Figure 14. Regression Simulations: Fire Deaths Per Million Persons



A county with a population that is 75 percent white and with a median household income of \$45,000.

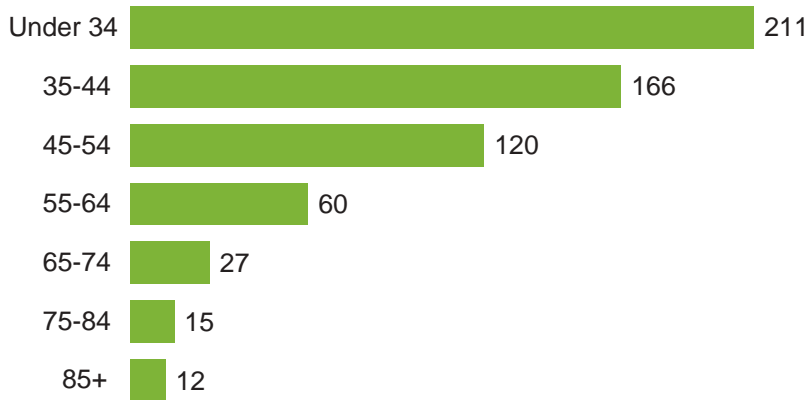
Source: NAHB analysis of data from the Multiple-Cause-of-Death file, National Center for Health Services, and 2000 Census of Population and Housing SF3 files, U.S. Census Bureau.

The most important statistics to consider in a discussion about seniors housing and the public safety budget are those related to crime.

BY VIRTUALLY ANY MEASURE, OLDER HOUSEHOLDS AND REDUCED CRIME RATES GO HAND IN HAND.

Seniors obviously place less stress on the budget for correctional facilities because they commit crimes less frequently. Data on arrests compiled by the FBI illustrate that point dramatically (Figure 15).

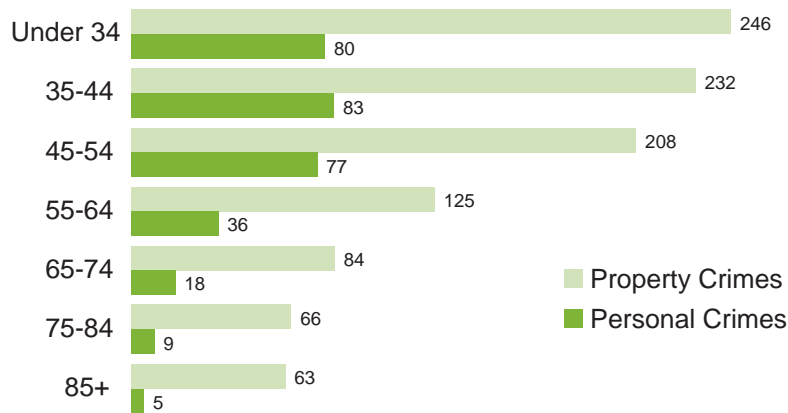
Figure 15. Arrests Per 1,000 Households by Age of Household Head



Sources: Crime in the United States, 2001 Uniform Crime Reports, Federal Bureau of Investigation; NAHB tabulations using data from the 2001 American Housing Survey, U.S. Census Bureau and HUD.

Knowledge about how seldom older citizens actually become victims of a crime is probably less common; however data from the Bureau of Justice Statistics (BJS) show that a person in a household headed by someone under age 35 is about 16 times more likely than someone in a household where the head is over age 85 to become a victim of a crime (Figure 16).

Figure 16. Crimes Per 1,000 Households by Age of Victimized Household Head



Source: NAHB tabulations of data for year 2001 from the National Crime Victimization Survey, U.S. Bureau of Justice Statistics, and the 2001 American Housing Survey, U.S. Census Bureau and HUD.

The results are almost as strong for property crimes, such as burglary, where the youngest households are victimized about four times as often as the oldest. From the housing industry's perspective, the property crime statistics reported by BJS are particularly significant because they represent a direct measure of crimes committed against households. Moreover, because the survey collects information from victims and potential victims, it captures information about crimes whether or not they are ever reported to the police.

The reason fewer crimes are committed against property owned or rented by older residents is open to speculation. Seniors have a demonstrable fear of crime and a desire for security.⁸ Perhaps they choose places to live largely because of features associated with low crime rates. Or perhaps, after they move in, seniors behave in ways—being home at odd hours or spending time outdoors observing what's going on in the neighborhood—that help deter some types of crime.

Both explanations are likely to be true to a certain degree. Whether one dominates the other is probably not important to a local jurisdiction evaluating its public safety budget.

A SENIORS HOUSING COMMUNITY WILL TEND TO BE BURGLARIZED LESS OFTEN—EITHER BECAUSE SENIORS ARE THE ONES LIVING IN IT, OR BECAUSE IT'S BUILT WITH THE SECURITY ENHANCING FEATURES IT MUST HAVE TO ATTRACT SENIORS, OR SOME COMBINATION OF THOSE TWO EFFECTS.

In any case, the most important things to keep in mind are simply that seniors do not often commit crimes, and seniors and their homes become the targets of crime less often than other age groups.

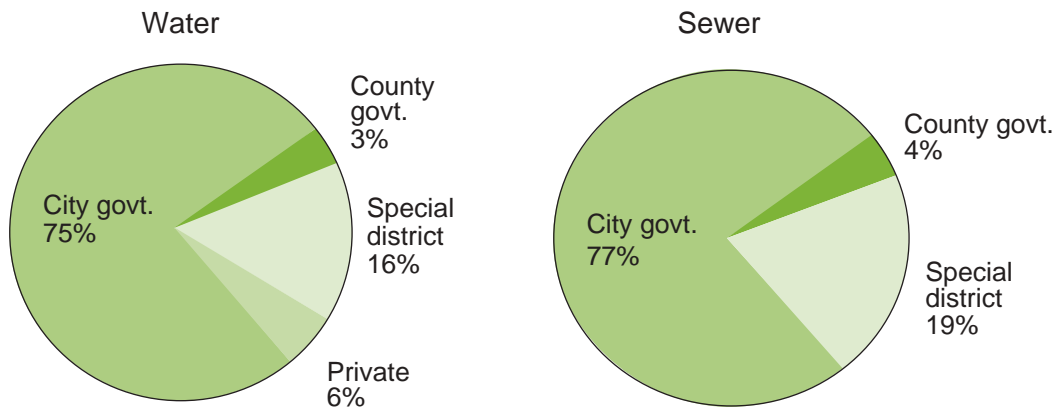
In both cases, the differences between seniors and younger households are dramatic. They seem almost certain to outweigh any additional public safety costs associated with above-average use of ambulance services.

8. See Paul Emrath, "Crime and Seniors' Housing Preferences," Seniors Housing News, Fall 1998, published by the NAHB Seniors Housing Council.

CHAPTER 5: Water and Sewer Services

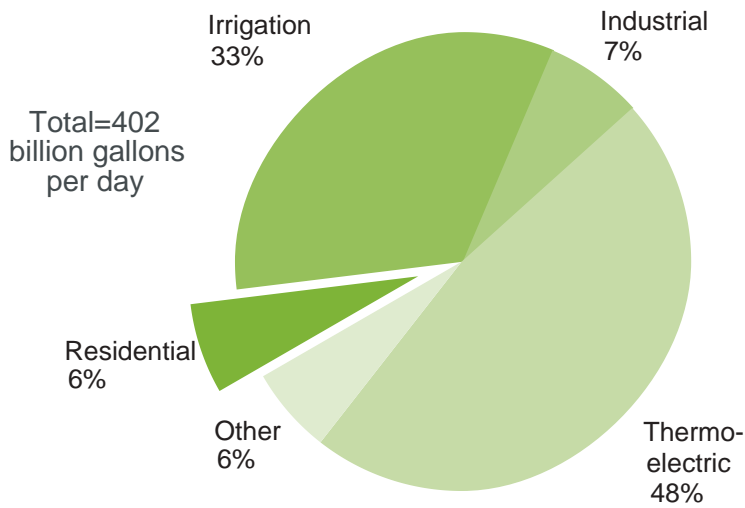
Providing water and, especially, sewer services is most often the responsibility of local governments. In the 2000 survey conducted by Raftelis Financial Consulting, the majority of water utilities were run by city governments (Figure 17).

Figure 17. Providers of Water and Sewer Services



ALTOGETHER, HOUSEHOLDS, FARMS, BUSINESSES, AND GOVERNMENTS IN THE UNITED STATES USE 402 BILLION GALLONS OF WATER A DAY. ACCORDING TO THE U.S. DEPARTMENT OF THE INTERIOR'S MOST RECENT ESTIMATES, RESIDENTIAL USE COUNTS FOR ONLY ABOUT 6 PERCENT OF THE TOTAL.

Figure 18. Water Use in the United States



Irrigation includes irrigation of crops and golf courses. The "Other" category includes commercial, livestock, mining, public use, and losses. The chart is based on water withdrawn, so it excludes hydroelectric power that uses water without diverting it or transporting it away from a river channel.

Source: U.S. Department of the Interior, Estimated Use of Water in the United States in 1995, U.S. Geological Survey Circular 1200

Most of the water used in the United States is used to irrigate farmland and generate thermoelectric power. Among the 50 states, thermoelectric power and crop irrigation account for at least 48 (and often more than 80) percent of the water withdrawn in every state except Alaska, where mining accounts for an unusually large proportion of the total.

On a per capita basis, residential water use varies considerably across the U.S. It's generally highest in desert states, probably because of climate-related differences in outdoor water use, such as watering lawns and filling swimming pools. Indoors, toilets use more water than any other individual home feature—although other plumbing fixtures, appliances, and even leaks, also account for a substantial share of total indoor consumption.⁹

In addition to charging bills based on monthly consumption, local utilities often impose other costs on residential customers, either directly or indirectly, by charging fees for extending the service to new homes, most commonly by collecting a fee from the developer.

WHEN FEES ARE COLLECTED BEFORE CONSTRUCTION BEGINS, INFORMATION ON HOW WATER USE IS LIKELY TO DIFFER AMONG DIFFERENT TYPES OF HOUSING UNITS IS ESPECIALLY IMPORTANT.

Again, household size influences water use.

9. Based on NAHB tabulations of data in the Residential End Uses Study, published by the American Water Works Association Research Foundation (Denver: Research Foundation, American Water Works Association, 1999). For more details see Paul Emrath, "Residential Water Use," Housing Economics, June 2000, published by NAHB Economics Group.

SENIORS HOUSEHOLDS TEND TO GENERATE LESS DEMAND FOR PUBLIC SERVICES, SUCH AS WATER AND SEWER, SIMPLY BECAUSE THESE HOUSEHOLDS TEND TO CONTAIN FEWER PEOPLE (FIGURE 1).

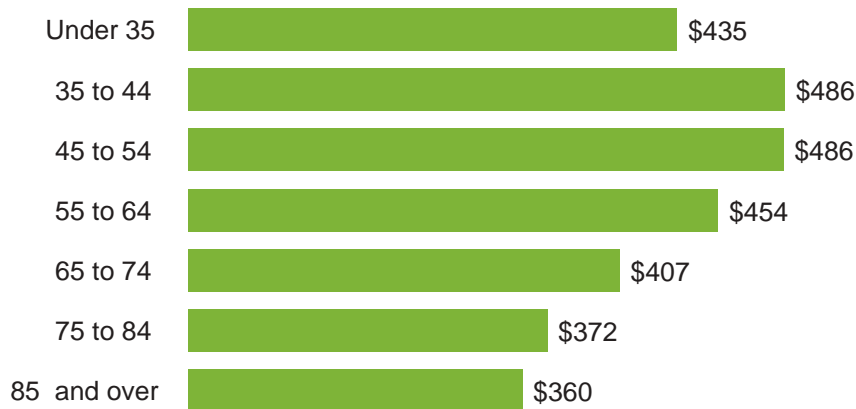
You can investigate the link between household age and the demand for water and services further. Data on use in physical units (gallons of water per year, for instance) would be ideal for that purpose, but these data do not appear to exist.¹⁰

An alternative is to look at utility payments. Because water and sewer charges are typically based on metered household water use, this amounts to a physical flow multiplied by a price.¹¹

Data on utility expenses for individual households are available from the 2001 American Housing Survey (AHS). Researchers looked at both water and sewer bills, over the course of a year, whether they were paid separately or were combined together in a single bill.¹² Wastewater flow is usually not monitored separately, and utilities conventionally assume that it's proportional to water use. In fact, eighty percent of the wastewater utilities in the Raftelis calculate bills for residential customers that way.

AHS data on water and sewer expenses, tabulated for owner-occupied, single-family detached homes, are shown in Figure 19.

Figure 19. Average Water/Sewer Bills by Age of Household Head



Source: 2001 American Housing Survey, U.S. Census Bureau and HUD

10. At NAHB's request, the American Water Works Association conducted an extensive search of thousands of articles and databases. It found no source of information on water use measured in physical units that identifies the age of the household or specifically separates seniors from other types of housing

11. If price of service charged varied in a systematic way with age, it could distort the results, but we are unaware of any evidence that this problem exists.

12. Renters were excluded to avoid problems that arise because of differential practices in including utility expenses in rents. Single-family detached, which account for the majority of owner-occupied homes, are used to control for possible differences among structure types. The samples of owner-occupied units in other types of structures are generally too small to cross tabulate by other variables.

Figure 19 shows clear differences among the age brackets.

HOUSEHOLDS IN THE 35-44 AND 45-54 AGE BRACKETS PAY THE MOST FOR WATER AND SEWER SERVICE. AFTER THAT, THE COST OF THE SERVICE DECLINES CONSISTENTLY AS AGE INCREASES.

The data are generally consistent with the hypothesis that seniors use fewer water and sewer services than other households, and they mirror the differences in household size. Heads of households age 55 to 64 pay somewhat more than those under age 35 for water and sewer service, but less than households between ages of 35 and 55. After age 65, water and sewer use drops even below the levels for the under-35 households and continues to decline with each successively older age bracket.

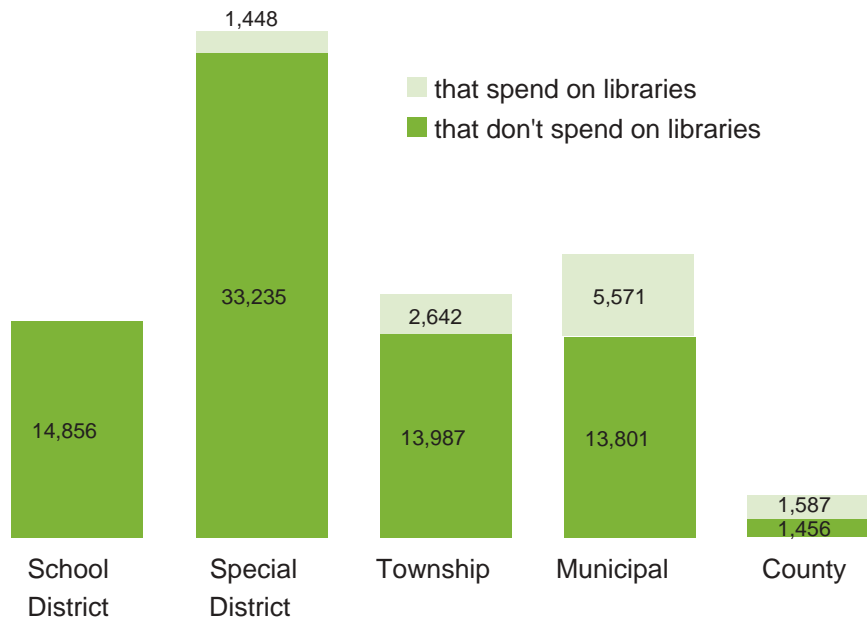
THIS FACT SUGGESTS THAT, ON A PER-HOUSING-UNIT BASIS, LOCAL GOVERNMENTS NEED TO SPEND LESS ON WATER AND SEWER INFRASTRUCTURE FOR RESIDENTIAL DEVELOPMENT THAT IS AGE-RESTRICTED OR OTHERWISE TARGETED TO SENIORS.

CHAPTER 6: Public Parks and Libraries

Parks and libraries are classified somewhat differently by different levels of government. The federal government groups public libraries with education into a broad “educational services” category.

Individual local governments are less likely to view the world that way. The federal classification scheme would be especially awkward in cases where education is funded by a special school district that is independent enough to qualify as a separate government entity. The 1997 Census of Governments counted nearly 15,000 of these independent school districts across the country. None of them reported having a separate budget for libraries (Figure 20).

Figure 20. Local Governments in the U.S. and Current Spending on Libraries



Source: 1997 Census of Governments, U.S. Census Bureau

The county, municipal, and township governments that have library budgets are more likely to follow a standard local government finance reference that groups libraries with public parks and recreation into a category called “recreation and culture.”¹³

Of the two subcategories, public parks and recreation generally accounts for a larger share of the local government

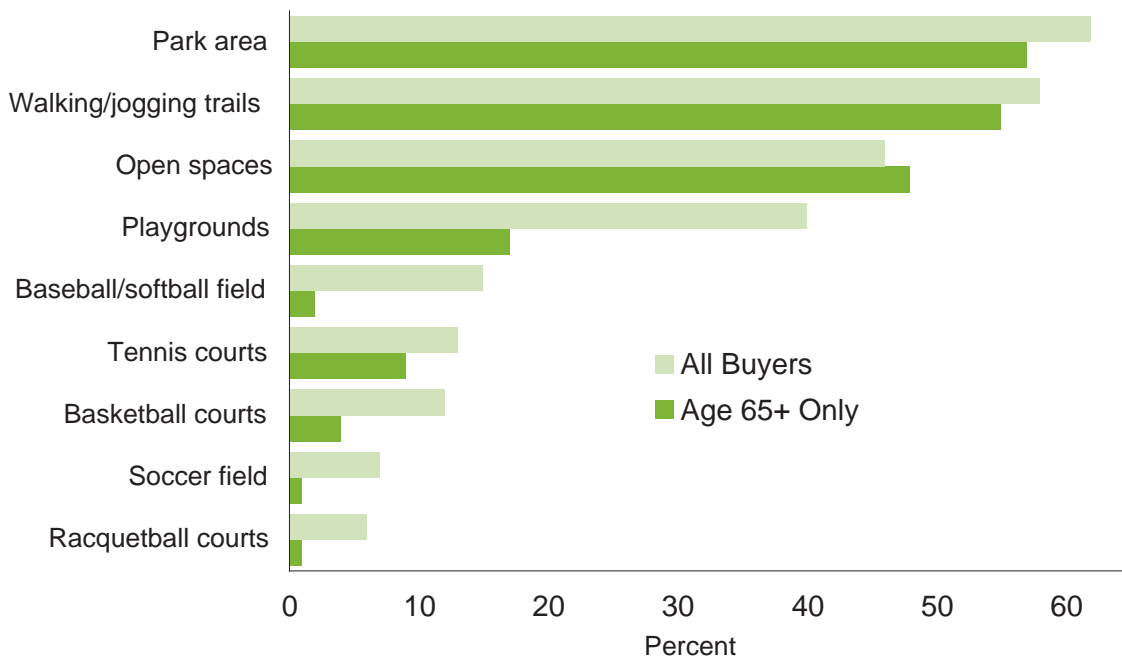
13. Burchell, Robert, David Listokin, and William Dolphin, *The New Practitioner's Guide to Fiscal Impact Analysis*, (New Brunswick, N.J.: Rutgers University Center for Urban Policy Research, 1985).

budget. According to the Census of Governments, in the 1996-97 fiscal year, local governments spent \$17 billion on parks and recreation, compared to \$6 billion on libraries.

Once again, when considering seniors housing and the use of public facilities, household size is an issue. Per housing unit, older households tend to place less stress on public facilities, simply because these households on average contain fewer people (Figure 1).

Beyond the general reduction in demand associated with smaller households, seniors tend to use certain types of recreational facilities less often. NAHB's latest Consumer Preference Survey demonstrated that, although seniors are fairly similar to other home buyers in their preferences for park areas and open spaces, they tend to have reduced preferences for specific facilities such as softball fields.¹⁴ That's hardly surprising, but in some cases quantifying the similarities and differences may prove useful (Figure 20, Table 6).

Figure 21. Home Buyer Preferences for Recreational Facilities



Percent of survey respondents who say the presence of the facility would significantly influence them to move into a community

Source: NAHB Economics Group, What 21st Century Home Buyers Want: A Survey of Consumer Preferences (Washington, D.C.: BuilderBooks.com, 2002).

14. Results from the survey are published in NAHB Economics Group, What 21st Century Home Buyers Want: A Survey of Customer Preferences (Washington, D.C.: BuilderBooks.com, 2002). The survey was also augmented with additional responses from seniors to permit more detailed seniors-only tabulations, and these were published in Margaret Wylde's Boomers on the Horizon: Housing Preferences of the 55+ Market, (Washington, D.C.: BuilderBooks.com, 2002). Both are available at www.BuilderBooks.com.

Table 6. Percent of Home Buyers Who Would Seriously Be Influenced to Move into a Community by the Presence of Outdoor Facilities

(By Age of the Household Head)

		LESS THAN				
	TOTAL	35	35 TO 44	45 TO 54	55 TO 64	65+
Park area	62	63	63	56	56	57
Walking/jogging trails	58	64	58	58	61	55
Open spaces	46	50	44	54	52	48
Playgrounds	40	42	47	30	24	17
Baseball/softball field	15	13	22	11	7	2
Tennis courts	13	16	13	17	7	9
Basketball courts	12	13	17	11	5	4
Soccer field	7	8	12	5	2	1
Racquetball courts	6	6	7	5	1	1

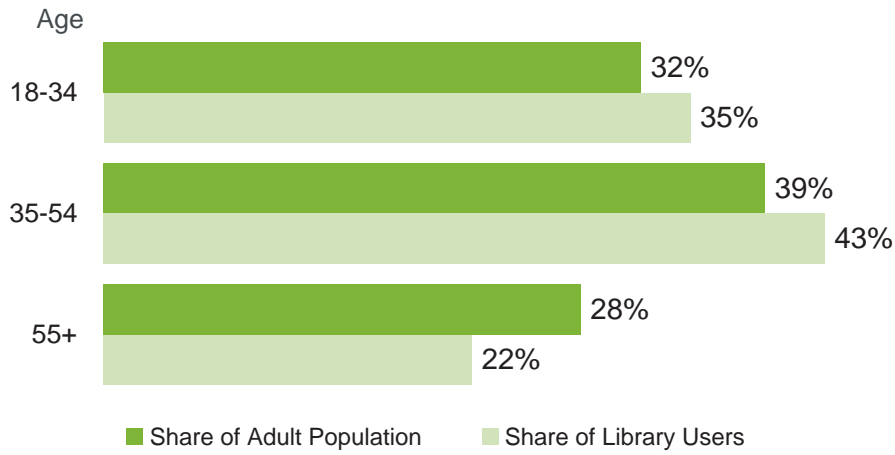
Source: NAHB Economics Group, What 21st Century Home Buyers Want: A Survey of Consumer Preferences (Washington, D.C.: Builderbooks.com, 2002).

ALTHOUGH ACCOUNTING FOR A RELATIVELY SMALL SHARE OF LOCAL GOVERNMENT BUDGETS, PUBLIC LIBRARIES HAVE NEVERTHELESS BECOME A SENIORS-RELATED ISSUE IN SOME PARTS OF THE COUNTRY. THE ISSUE INVOLVES THE SPECULATION THAT SENIORS HOUSING PLACES A DISPROPORTIONATELY HIGH BURDEN ON A COMMUNITY'S LIBRARY FACILITIES.

Given the smaller size of seniors households, and their lack of children, this speculation doesn't seem persuasive at first glance. For evidence one way or the other, you can look at a survey conducted by the Gallup Organization for the American Library Association and compare library use to the total population.

THE GALLUP SURVEY CONTRADICTS THE PROPOSITION THAT SENIORS USE LIBRARIES EXCESSIVELY. ALTHOUGH CENSUS BUREAU ESTIMATES SHOW THAT PERSONS AGE 55 OR OLDER ACCOUNTED FOR 28 PERCENT OF THE ADULT POPULATION IN THE YEAR OF THE SURVEY, THEY ACCOUNTED FOR ONLY 22 PERCENT OF THE ADULT LIBRARY USERS.

Figure 22. Adult Population and Library Use



Sources: Telephone survey conducted by the Gallup Organization for the American Library Association, May 1998, Population Estimates, U.S. Census Bureau.

This result is based strictly on adults. The Gallup survey didn't include school-aged children, who often have special sections of public libraries set aside for their use, and who are infrequently present in households where the head is over age 54 (Figure 3).

CHAPTER 7: Local Economic Benefits: Income, Taxes, and Jobs Generated by a Typical Active Adult Community

Other sections of this booklet cover seniors housing from the standpoint of fiscal costs borne by local governments. In particular, they show that older households tend to require fewer publicly provided facilities and services, and therefore they result in lower fiscal costs.

BUT THE IMPACTS OF BUILDING SENIORS HOUSING ALSO INCLUDE POSITIVE ECONOMIC BENEFITS FOR THE COMMUNITY IN WHICH IT'S LOCATED--INCLUDING INCOME, JOBS, AND TAX REVENUE FOR LOCAL GOVERNMENTS.

NAHB's Housing Policy Department has developed a model to estimate these local economic benefits for homebuilding in general. The model has been successfully applied to residential construction in more than 250 areas across the country. The sections below describe how the model works and show the results of applying it to a typical active adult housing project.

The NAHB Model

You can divide the economic benefits of residential construction into three phases:

Phase I: Construction. Jobs, wages, and local taxes (including permit, utility connection, and impact fees) generated by the development, construction, and sale of the home. The jobs include on-site and off-site construction work as well as jobs generated in retail and wholesale sales of components, transportation to the site, and the professional services required to build a home and deliver it to the buyer.

Phase II: The Ripple Effect. The wages and profits earned in Phase I are spent on other locally produced goods and services. This spending generates additional income for local residents, which is spent on still more locally produced goods and services, and so on. This continuing recycling of income back into the community is usually called a "multiplier" or "ripple" effect.

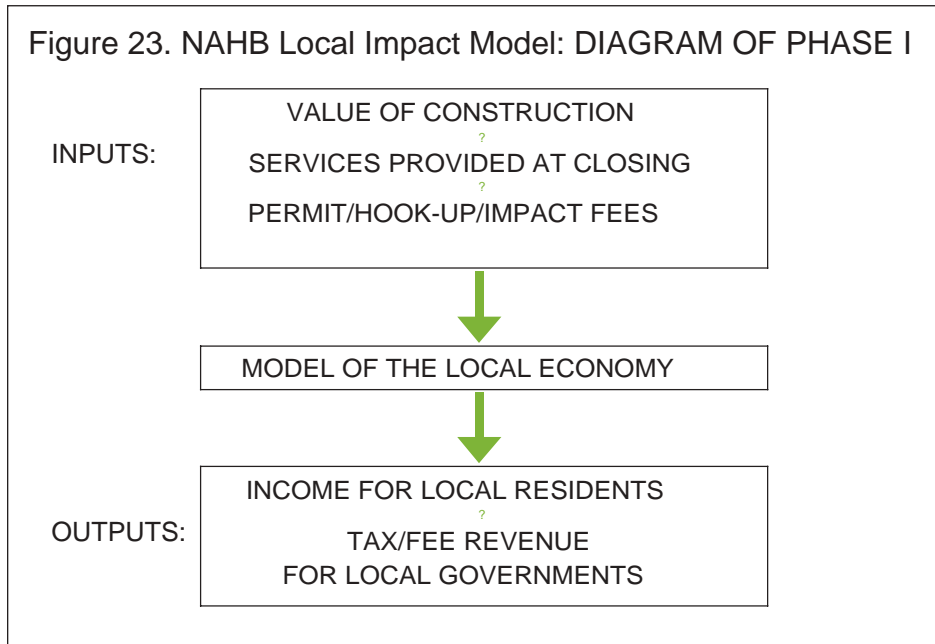
Phase III: The Ongoing, Annual Effect. When a home is occupied, the occupants pay taxes, spend money, and otherwise participate in the local economy. This first step in another set of economic ripples causes a permanent increase in the level of economic activity, jobs, wages, and local tax receipts. Phase III doesn't necessarily imply that all new homes are occupied by households moving in from outside the community. A household may move into the new unit from elsewhere in the same local area, while another household moves into the area to occupy the vacated unit, or the local area simply retains older citizens who would otherwise move out of the area because of a lack of suitable housing. In any case, the new housing results in a net gain of a household to the local economy.

PHASES I AND II ARE ONE-TIME IMPACTS THAT OCCUR AS THE RESULT OF CONSTRUCTION ACTIVITY. PHASE III IS AN ONGOING EFFECT THAT CONTINUES TO OCCUR YEAR AFTER YEAR. WHEN ANALYZING THE LOCAL IMPACT OF HOMEBUILDING, YOU NEED TO ACCOUNT FOR ALL THREE.

Estimating all three phases requires a model that captures the essential features of a local economy. You can capture these essential features by selecting certain commodities and industries from the benchmark input-output tables produced by the U.S. Bureau of Economic Analysis. The NAHB model takes a conservative approach. Of the roughly 500 industries and commodities provided in the most detailed versions of the input-output files, the model retains only 56 commodities and 77 industries, on the grounds that only these reflect economic activity that stays within the local area. Visits to the grocery store and barbershop are included in the local model, for example, while most manufacturing activity is not.

Taxes are extracted from the income and other value-added components of the input-output table, using primarily data from the Census of Governments. Wages and salaries are extracted using data on wages per job published by the Bureau of Economic Analysis.

The process of converting construction into income and taxes in Phase I of the model is summarized in Figure 23.

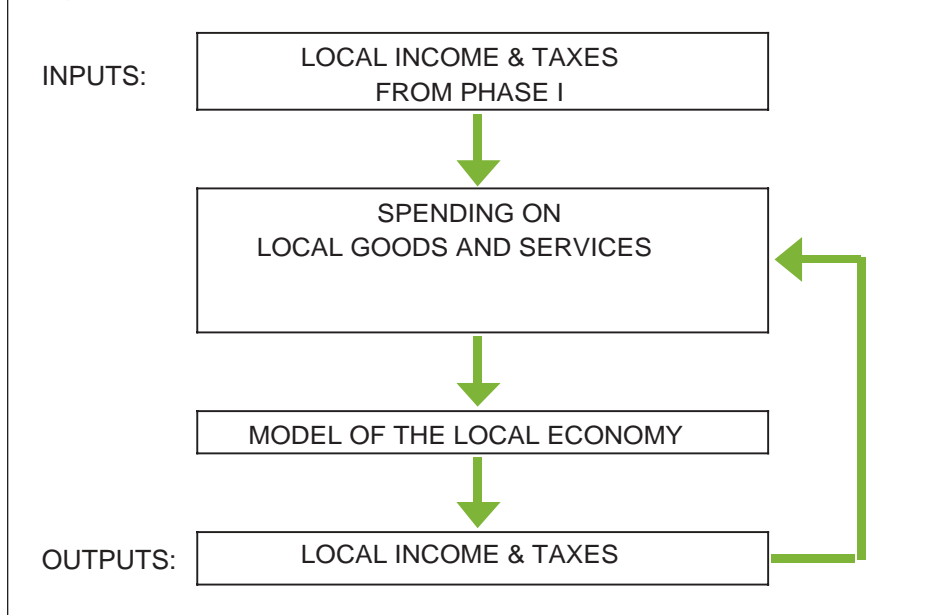


The outputs from Phase I—local income and tax revenue—become inputs for Phase II. Phase II begins by estimating how much of the added income households spend on each of the local commodities, using data from the Consumer Expenditure Survey (CES), which is conducted by the U.S. Bureau of Labor Statistics.

In short, the local income generated by construction activity results in more local spending, which then generates additional local income. But a fraction of this income will also be spent locally, which will generate still more local income, lead to yet another round of spending, and so on (Figure 24).

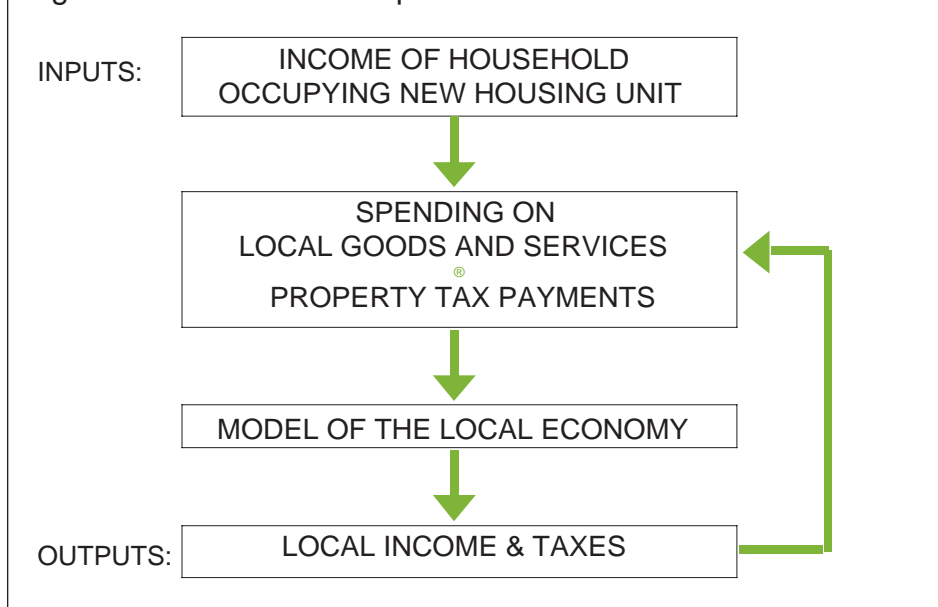
The end result of these successive economic “ripples” can be computed mathematically.

Figure 24. NAHB Local Impact Model: DIAGRAM OF PHASE II



The process of estimating the ongoing impacts that result from the new homes becoming occupied (Phase III of the model) begins with the income of the households moving in. That income can easily be estimated with data from the Census. A fraction of this income is spent on locally produced goods and services. The NAHB model estimates this income and computes a ripple effect. The procedure is similar to the one outlined in Phase II (Figure 24).

Figure 25. NAHB Local Impact Model: DIAGRAM OF PHASE III



In Phase III the income of the household occupying the new unit is used only as an input.

THE ONGOING BENEFIT OF INCREASED LOCAL INCOME REPORTED BY THE MODEL IS INCOME GENERATED FOR RESIDENTS OF THE COMMUNITY OTHER THAN THE ONES MOVING INTO THE NEW HOMES

Although initially developed and calibrated for a typical metropolitan area using national averages, the NAHB model can be adapted to a specific local area, and a specific project, by replacing the averages with information specific to that project and area:

- Construction value (house price minus raw land value)
- Permit, hook-up, and impact fees
- Property tax payments
- In the case of seniors housing, fees paid for services.

The next section explains how these inputs were generated for a typical active adult project.

A Typical Active Adult Project

Because official construction statistics do not distinguish homes intended for active adults from other types of residential construction, national average statistics (price, size, etc.) for active adult housing do not exist.

In order to obtain information that reflects an active adult project that is typical in some sense, values of the homes and related information were obtained from five different active adult projects. The projects surveyed were of different sizes, built by different developers, and located in different parts of the country (the Southeast, Southwest, and Midwest).

The inputs used include—

- an average active adult house price of \$180,000
- an average raw land value of \$22,691
- an average of \$4,805 in impact, permit, and other fees paid to local governments
- an average property tax payment of \$1,980 per year
- Average fee paid by home owners of \$108 per month

On average, most of the fee pays for property maintenance and repair, although a substantial share also goes to security and a fitness center. Smaller shares provide social, recreational, and wellness or health-related services. Most of the inputs are average values computed for the five active adult projects. Property tax payments are based on a national average tax rate.

Economic Benefits

Because Phases I and II of the model represent impacts that occur only once, triggered either directly or indirectly by construction activity, they can be added together into a total one-year impact.

Based on the above-mentioned inputs, the estimated local one-year impacts of building 100 single-family homes in a typical active adult project include—

- \$10 million in local income
- \$1 million in taxes and other revenue for local governments
- 216 local jobs

These local impacts represent income and jobs for residents of the local market area, and taxes (and other sources of revenue, including permit fees) for all local jurisdictions within the area. They are also one-year impacts that include both the direct and indirect impact of the construction activity itself, and the impact of local residents who earn money from the construction activity and spend part of it within the local area.

UNLIKE THE ONE-YEAR IMPACTS, THOSE IN PHASE III ARE TRIGGERED BY THE NEW RESIDENTS MOVING IN, SO THEY WILL CONTINUE TO OCCUR, YEAR AFTER YEAR, AS LONG AS THE HOME REMAINS OCCUPIED.

Based on the above-listed inputs, the recurring impacts of building 100 single-family homes in the typical active adult project include—

- \$3 million in local income
- \$504,000 in taxes and other revenue for local governments
- 67 local jobs

To briefly summarize the results, the NAHB model is capable of producing considerable detail, including impacts on income and employment in 16 industries and the local government. These impacts are shown for the typical active adult project in Table 7 (one-year impacts) and Table 8 (ongoing, annual impacts).

**Table 7. Local Impact of Building 100 Homes in a Typical Active Adult Community
One-Year Impact (Sum of Phases I and II)**

Industry	Local Income	Local Business Owner's Income	Local Wages and Salaries	Wages & Salaries Per Full-time Job	Number of Local Jobs Supported
Construction	\$5,627,000	\$1,000,000	\$4,628,000	\$40,000	116
Manufacturing	\$18,000	\$1,000	\$17,000	#DIV/0!	0
Transportation	\$37,000	\$3,000	\$34,000	\$34,000	1
Communications	\$118,000	\$24,000	\$95,000	\$95,000	1
Utilities	\$60,000	\$0	\$60,000	\$60,000	1
Wholesale and retail trade	\$1,272,000	\$159,000	\$1,113,000	\$28,000	40
Finance and insurance	\$260,000	\$24,000	\$236,000	\$59,000	4
Real Estate	\$241,000	\$112,000	\$128,000	\$32,000	4
Personal & repair services	\$122,000	\$47,000	\$75,000	\$25,000	3
Services to dwellings / buildings	\$34,000	\$12,000	\$22,000	\$36,000	0
Business & professional services	\$674,000	\$223,000	\$451,000	\$45,000	10
Eating and drinking places	\$144,000	\$25,000	\$120,000	\$40,000	3
Automobile repair & service	\$139,000	\$53,000	\$87,000	\$29,000	3
Entertainment services	\$52,000	\$13,000	\$39,000	\$39,000	1
Health, education, & social services	\$681,000	\$114,000	\$567,000	\$41,000	14
Local government	\$397,000	\$0	\$397,000	\$40,000	10
Other	\$135,000	\$23,000	\$112,000	\$37,000	3
Total	\$10,012,000	\$1,831,000	\$8,181,000	\$38,000	216

Table 8. Local Impact of Building 100 Homes in a Typical Active Adult Community Ongoing, Annual Impact (Phases III)

Industry	Local Income	Local Business Owner's Income	Local Wages and Salaries	Wages & Salaries per Full-time Job	Number of Local Jobs Supported
Construction	\$224,000	\$48,000	\$176,000	\$40,000	4
Manufacturing	\$15,000	\$1,000	\$14,000	\$45,000	0
Transportation	\$18,000	\$1,000	\$17,000	\$38,000	0
Communications	\$85,000	\$17,000	\$68,000	\$68,000	1
Utilities	\$52,000	\$0	\$52,000	\$63,000	1
Wholesale and Retail Trade	\$475,000	\$63,000	\$412,000	\$25,000	17
Finance and Insurance	\$157,000	\$12,000	\$145,000	\$52,000	3
Real Estate	\$115,000	\$54,000	\$61,000	\$38,000	2
Personal & Repair Services	\$124,000	\$47,000	\$77,000	\$25,000	3
Services to Dwellings/Buildings	\$23,000	\$8,000	\$15,000	\$36,000	0
Business & Professional Services	\$234,000	\$74,000	\$160,000	\$47,000	3
Eating and Drinking Places	\$123,000	\$21,000	\$102,000	\$38,000	3
Automobile Repair & Service	\$132,000	\$47,000	\$85,000	\$29,000	3
Entertainment Services	\$57,000	\$13,000	\$43,000	\$34,000	1
Health, Education, & Social Services	\$872,000	\$145,000	\$727,000	\$40,000	18
Local Government	\$200,000	\$0	\$200,000	\$42,000	5
Other	\$71,000	\$7,000	\$64,000	\$25,000	3
Total	\$2,979,000	\$560,000	\$2,419,000	\$36,000	67

IN GENERAL, THE LOCAL ECONOMIC BENEFITS OF BUILDING 100 UNITS IN THE TYPICAL ACTIVE ADULT COMMUNITY ARE SIMILAR TO THE BENEFITS OF BUILDING 100 AVERAGE SINGLE-FAMILY HOMES REGARDLESS OF WHO OCCUPIES THEM. THE MAIN DIFFERENCE IS IN PHASE III, WHERE (COMPARED TO 100 AVERAGE HOMES) 100 ACTIVE ADULT UNITS SUSTAIN TWO FEWER JOBS IN THE LOCAL RETAIL AND WHOLESALE TRADE BUT FIVE MORE IN THE LOCAL HEALTH SERVICES INDUSTRY.

The presentation here is relatively brief and emphasizes only a few key points. More detailed descriptions and results, including separate income and job estimates for Phases I and II of the model, as well as local government revenue in 13 categories of taxes and fees, are available from the NAHB Housing Policy Department (202-266-8398).

IN ADDITION TO RESULTS FOR A TYPICAL PROJECT IN AN AVERAGE CITY, THE LOCAL IMPACT MODEL CAN BE CUSTOMIZED TO AN INDIVIDUAL ACTIVE ADULT PROJECT IN A PARTICULAR CITY. UNDER CERTAIN CONDITIONS, NAHB WILL UNDERTAKE THIS EFFORT AND PRODUCE A CUSTOMIZED REPORT FOR A SPECIFIC ACTIVE ADULT COMMUNITY.

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